

| | |
|---|------------|
| Heavy vehicle specialist inspector's or manufacturing inspecting organisation's name <small>(PRINT IN CAPS)</small> | ID |
| WILLIAM SINCLAIR | SWI |

| | |
|--|---|
| Plate number <small>(optional)</small> | VIN/chassis number |
| | 7 A 9 E 2 5 0 1 3 M 2 0 2 3 1 1 3 |
| Make | Component being certified: |
| DOMETT | <input type="checkbox"/> Chassis <input type="checkbox"/> Load anchorage |
| Model <small>(optional)</small> | <input type="checkbox"/> Log bolsters <input type="checkbox"/> Towing connection <input checked="" type="checkbox"/> Brakes |
| E2501 H | <input type="checkbox"/> SRT <input type="checkbox"/> PSV stability <input type="checkbox"/> PSV rollover |
| Certification category | <input type="checkbox"/> Swept path <input type="checkbox"/> PBS |
| HVEK | |

Description of work

CERTIFY TO SCHEDULE 5 OF LTR 32015/5: NZ HEAVY VEHICLE BRAKE SPECIFICATION.
 CARRY OUT BRAKE CALCULATIONS, INSPECTION AND ECU END OF LINE PROTOCOL.
 5AFT LIVESTOCK **RSS ON TYRE: 265 70 R19.5**
 FOR SYSTEM ARCHITECTURE, PLEASE REFER TO PDS WORKSHEET & SCHEMATIC.
REASON FOR CERTIFICATION: NEW TRAILER BUILD

| | |
|---------------------------------|------------------------------------|
| Code/standard/rule certified to | Component load rating(s) |
| LTR 32015/5 | 32 Tonnes GVM |
| General drawing number(s) | 16 Tonne (Front brake mass) |
| N/A | 19 Tonne (Rear brake mass) |

| |
|---|
| Supporting documents |
| BRAKE RULE CERTIFICATE JH211209 WS211206 |
| BRAKE CALCULATION # TP52336 |


Special conditions (optional)

WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KM/H

| | | |
|--|----|--|
| Certification expiry date <small>(if applicable)</small> | or | Hubodometer reading <small>(whichever comes first)</small> |
| N/A [UNLESS MODIFIED] | | <input type="text"/> |

Declaration

I the undersigned, declare that I am the heavy vehicle specialist inspector identified and I hold a current valid appointment. I certify that the above mentioned vehicle component's design, manufacture and installation, and this certification complies in all respects with the Land Transport Rule: Vehicle Standards Compliance 2002 and my appointment. To the best of my knowledge the information contained in the certificate is true and correct.

| | |
|--|---------------|
| Designer's ID <small>(if different from inspector below)</small> | |
| JOHN HIRST J E H | |
| Inspector's signature | |
|  | |
| Inspector's name <small>(PRINT IN CAPS)</small> | ID number |
| WILLIAM SINCLAIR | SWI |
| Date | Number |
| 06-Dec-21 | 800408 |

| | | |
|---|--|------|
| CoF vehicle inspector ID <small>(if applicable)</small> | CoF vehicle inspector signature <small>(if applicable)</small> | Date |
| | | |

All fields are mandatory unless otherwise stated.

trailer (full, semi-, centre-axle) with air brake system acc. to UN/ECE-R.13.11

distribution: DOMETT TRAILERS
 7A9E25013M2023113
 SoDC: JH211209
 LT400: SWI

please note!

This brake calculation is made under consideration of
 -the legal precriptions mentioned above in the version valid
 at the time of making the program (V6.18.07.12).
 -the functional characteristics of our products
 as well as the data of the brake out of the test
 approvals of the axle manufacturers, and
 -the other vehicle data included in the brake calculation.
 Please check whether these data correspond to the actual vehicle data.
 Our conditions of delivery apply (particularly section 9.0).
 In any case we commend to do a braking harmonisation!
 WABCOBrake V6.18.07.12 db 31.08.2018

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT LIVESTOCK
 trailer type : 5-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 WABCO TRAILER - EBS E
 TRISTOP 3+4: T.14/24 [TSE1416HTLD64 ACTUALLY FITTED -
 SEE PAGE 7 FOR PERFORMANCE DATA]
 265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : SAF, SBW 1937, TDB 0749 ECE,

| | | unladen | laden |
|--------------------------|----------|-------------|-------|
| total mass | P in kg | 10200 | 35050 |
| axle 1 | P1 in kg | 2400 | 8000 |
| axle 2 | P2 in kg | 2400 | 8000 |
| axle 3 | P3 in kg | 1800 | 6350 |
| axle 4 | P4 in kg | 1800 | 6350 |
| axle 5 | P5 in kg | 1800 | 6350 |
| wheel base | E in mm | 6450 - 6550 | |
| centre of gravity height | h in mm | 1486 | 2277 |

| | axle 1 | axle 2 | axle 3 | axle 4 | axle 5 |
|---|----------|----------|----------|----------|----------|
| no. of combined axles | 1 | 1 | 1 | 1 | 1 |
| no. of brake chambers per axle line KDZ | 2 | 2 | 2 | 2 | 2 |
| The power output corresponds to | BZ 122.1 | BZ 122.1 | BZ 119.6 | BZ 119.6 | BZ 122.1 |
| brake chamber manufacturer | Meritor | Meritor | Meritor | Meritor | Meritor |
| chamber size | 20. | 20. | T.14/24 | T.14/24 | 14. |
| lever length 1Bh in mm | 69 | 69 | 69 | 69 | 69 |
| brake factor [-] | 23.03 | 23.03 | 23.03 | 23.03 | 23.03 |
| dyn. rolling radius rdyn min in mm | 421 | 421 | 421 | 421 | 421 |
| dyn. rolling radius rdyn max in mm | 421 | 421 | 421 | 421 | 421 |
| threshold torque Co Nm | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |

| calculation: | | | | | |
|--|-------|-------|-------|-------|-------|
| chamber pressure(rdyn min)pH at z=22,5%bar | 2.3 | 2.3 | 2.0 | 2.0 | 2.0 |
| chamber pressure(rdyn max)pH at z=22,5%bar | 2.3 | 2.3 | 2.0 | 2.0 | 2.0 |
| chamber press.(servo)pcha at pm6,5bar bar | 6.4 | 6.4 | 4.3 | 4.3 | 4.3 |
| piston force ThA at pm6,5bar N | 7441 | 7441 | 4085 | 4085 | 4085 |
| brake force(rdyn min)T lad. at pm6,5bar N | 56364 | 56364 | 30837 | 30837 | 30837 |
| brake force(rdyn max)T lad. at pm6,5bar N | 56364 | 56364 | 30837 | 30837 | 30837 |
| Brake force incl. 1 % rolling resistance | | | | | |
| proportion % | 22.3 | 22.3 | 18.5 | 18.5 | 18.5 |

braking rate z laden 0.597 for rdyn min
 z = sum (TR)/PRmax 0.597 for rdyn max

Trailer may only be operated in combination with trucks/tractors with ISO 7638 supply (5 or 7 polar).

brake diagram :

maximum pressure: 8.5 bar

axle 1:

valve 1: 480 207 0.. 0 WABCO or 480 207 2.. 0
 EBS relay valve

brake cylinder: Meritor 20HSCLD65

axle 2:

valve 1: 480 207 0.. 0 WABCO or 480 207 2.. 0
 EBS relay valve

brake cylinder: Meritor 20HSCLD65

axle 3:

valve 1: 480 102 0.. 0 WABCO
 EBS trailer modulator

brake cylinder: Meritor 1424HTLD64

axle 4:

valve 1: 480 102 0.. 0 WABCO
EBS trailer modulator

brake cylinder: Meritor 1424HTLD64

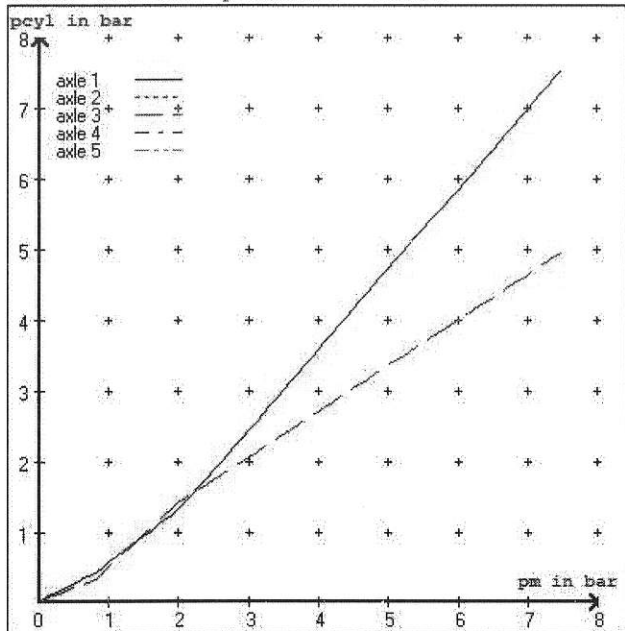
axle 5:

valve 1: 480 102 0.. 0 WABCO
EBS trailer modulator

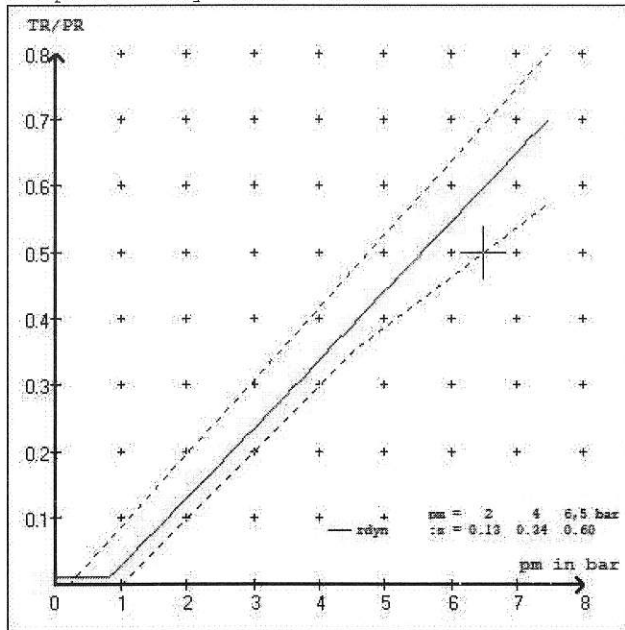
brake cylinder: Meritor 14HSCLD64

| | | | | | | | |
|-----------------------------|----------------|-------|-------|-------|-------|-------|--|
| test type III (zIII = 0.30) | for rdyn min : | axle1 | axle2 | axle3 | axle4 | axle5 | |
| at pm 3.6 bar => | pcha in bar : | 3.2 | 3.2 | 2.5 | 2.5 | 2.5 | |
| test type III (zIII = 0.06) | for rdyn min : | axle1 | axle2 | axle3 | axle4 | axle5 | |
| at pm 1.3 bar => | pcha in bar : | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | |

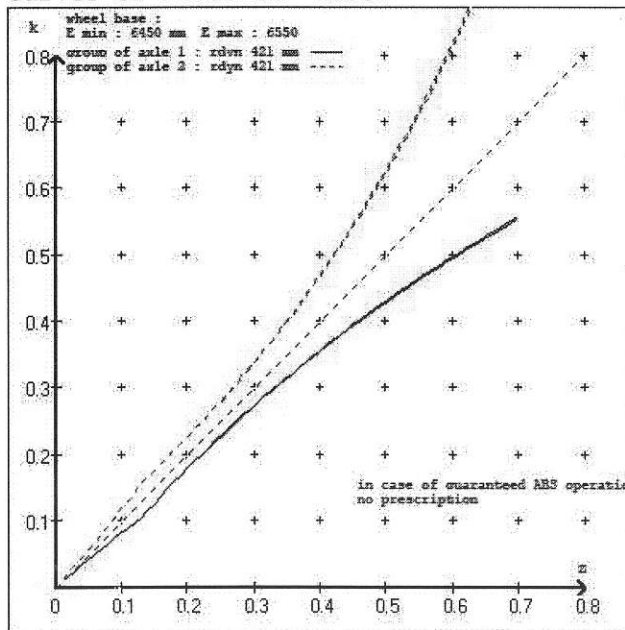
brake chamber pressure laden



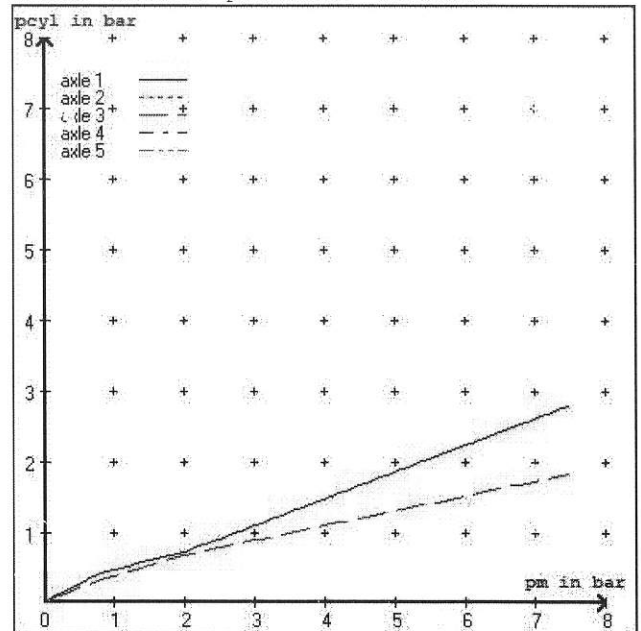
compatibility band laden



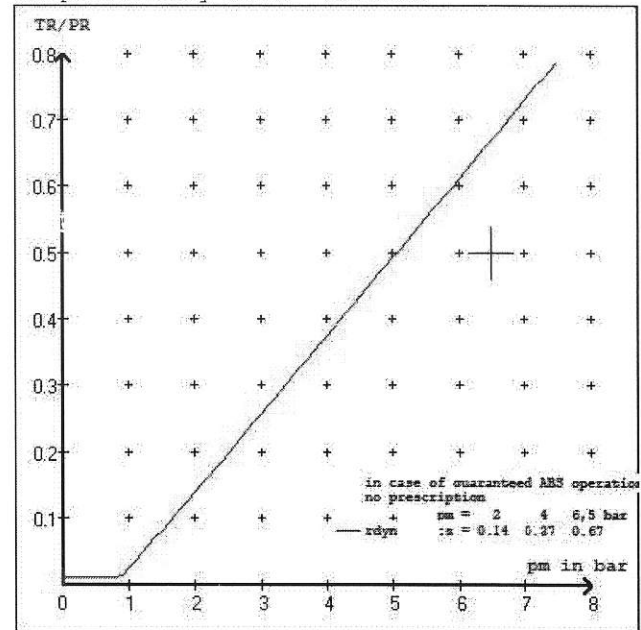
curves of friction laden



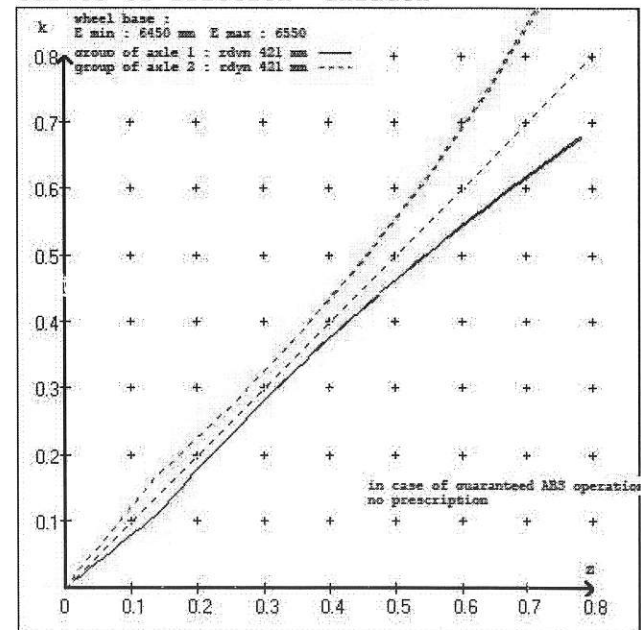
brake chamber pressure unladen



compatibility band unladen



curves of friction unladen



vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT LIVESTOCK
 trailer type : 5-axle-full-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter 20. (Meritor) lever length 69 mm
 axle 2 : 2 x type/diameter 20. (Meritor) lever length 69 mm
 axle 3 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 4 : 2 x type/diameter T.14/24 (Meritor) lever length 69 mm
 axle 5 : 2 x type/diameter 14. (Meritor) lever length 69 mm

brake diagram :

valve :

480 207 0.. 0 WABCO EBS relay valve or 480 207 2.. 0
 480 102 0.. 0 WABCO EBS trailer modulator

EBS input data

=====

vehicle manufacturer: DOMETT TRAILERS
 trailer model : 5AFT LIVESTOCK
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 52336A

tire circumference main axle : 2650 for rdyn max
 tire circumference auxiliary axle : 2650 for rdyn max

assignment pm / deceleration z: pm 0.8 bar z = 0.010
 (laden condition) 2.0 bar z = 0.134
 6.5 bar z = 0.600

| control pressure pm | | | 6,5 | control pressure pm | | | 0.8 | 2.0 | 6.5 |
|---------------------|-------------------|--|-------------------|---------------------|--|-----------------|-----|-----|-----|
| axle | axle load unladen | bellow pr. unladen | brake pr. unladen | axle load laden | bellow pr. laden | brake pr. laden | | | |
| 1 | 2400 | to be | 2.4 | 8000 | to be | 0.4 | 1.3 | 6.4 | |
| 2 | 2400 | entered by the vehicle manufact. | 2.4 | 8000 | entered by the vehicle manufact. | 0.4 | 1.3 | 6.4 | |
| 3 | 1800 | | 1.6 | 6350 | | 0.3 | 1.4 | 4.3 | |
| 4 | 1800 | | 1.6 | 6350 | | 0.3 | 1.4 | 4.3 | |
| 5 | 1800 | | 1.6 | 6350 | | 0.3 | 1.4 | 4.3 | |
| | | | | | | | | | |

The unladen values indicated in the above table are values for the basic parameter set. Higher unladen axle loads and liftaxles are automatically recognized and do not require separate adjustment. The above unladen axle loads must not be fallen below.

=====

| axle 1 | | axle 2 | | axle 3 | | axle 4 | | axle 5 | |
|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| axle load | pcyl | axle load | pcyl | axle load | pcyl | axle load | pcyl | axle load | pcyl |
| 2400 | 2.4 | 2400 | 2.4 | 1800 | 1.6 | 1800 | 1.6 | 1800 | 1.6 |
| 2900 | 2.8 | 2900 | 2.8 | 2300 | 1.9 | 2300 | 1.9 | 2300 | 1.9 |
| 3400 | 3.1 | 3400 | 3.1 | 2800 | 2.2 | 2800 | 2.2 | 2800 | 2.2 |
| 3900 | 3.5 | 3900 | 3.5 | 3300 | 2.5 | 3300 | 2.5 | 3300 | 2.5 |
| 4400 | 3.8 | 4400 | 3.8 | 3800 | 2.8 | 3800 | 2.8 | 3800 | 2.8 |
| 4900 | 4.2 | 4900 | 4.2 | 4300 | 3.1 | 4300 | 3.1 | 4300 | 3.1 |
| 5400 | 4.5 | 5400 | 4.5 | 4800 | 3.4 | 4800 | 3.4 | 4800 | 3.4 |
| 5900 | 4.9 | 5900 | 4.9 | 5300 | 3.7 | 5300 | 3.7 | 5300 | 3.7 |
| 8000 | 6.4 | 8000 | 6.4 | 6350 | 4.3 | 6350 | 4.3 | 6350 | 4.3 |

data sheet to ECE vehicle type-approval certificate concerning braking equipment: according to ECE R13 annex 11

| | | |
|------------------------------|--------------|----------------------------|
| axle 1 : reference axle: SAF | SBW 1937 | brake lining: Jurid 539 |
| test report : | TDB 0749 ECE | date : 20130930 30.09.2013 |
| axle 2 : reference axle: SAF | SBW 1937 | brake lining: Jurid 539 |
| test report : | TDB 0749 ECE | date : 20130930 30.09.2013 |
| axle 3 : reference axle: SAF | SBW 1937 | brake lining: Jurid 539 |
| test report : | TDB 0749 ECE | date : 20130930 30.09.2013 |
| axle 4 : reference axle: SAF | SBW 1937 | brake lining: Jurid 539 |
| test report : | TDB 0749 ECE | date : 20130930 30.09.2013 |
| axle 5 : reference axle: SAF | SBW 1937 | brake lining: Jurid 539 |
| test report : | TDB 0749 ECE | date : 20130930 30.09.2013 |

calc. verific. of residual (hot) braking force type III
(item 4.2.1 of appendix 2 to annex 11)

| | | |
|--------|---------------|---------------|
| axle 1 | (rdyn 421 mm) | T = 26.2 % Fe |
| axle 2 | (rdyn 421 mm) | T = 26.2 % Fe |
| axle 3 | (rdyn 421 mm) | T = 16.9 % Fe |
| axle 4 | (rdyn 421 mm) | T = 16.9 % Fe |
| axle 5 | (rdyn 421 mm) | T = 16.9 % Fe |

calculated actuator stroke in mm
(item 4.3.1.1 of appendix 2 to annex 11)

| | | |
|--------|--------------|-----------|
| axle 1 | (sp = 58 mm) | s = 39 mm |
| axle 2 | (sp = 58 mm) | s = 39 mm |
| axle 3 | (sp = 56 mm) | s = 39 mm |
| axle 4 | (sp = 56 mm) | s = 39 mm |
| axle 5 | (sp = 56 mm) | s = 39 mm |

average thrust output in N at pm = 6,5 bar (however max. pcha = 7,0 bar)

| | |
|-------|--------------|
| axle1 | ThA = 7441 N |
| axle2 | ThA = 7441 N |
| axle3 | ThA = 4085 N |
| axle4 | ThA = 4085 N |
| axle5 | ThA = 4085 N |

calc. residual (hot) braking force in N
(item 4.3.1.4 of appendix 2 to annex 11)

| | | |
|--------|---------------|-------------|
| axle 1 | (rdyn 421 mm) | T = 44004 N |
| axle 2 | (rdyn 421 mm) | T = 44004 N |
| axle 3 | (rdyn 421 mm) | T = 24161 N |
| axle 4 | (rdyn 421 mm) | T = 24161 N |
| axle 5 | (rdyn 421 mm) | T = 24161 N |

| | | |
|--|-------------|--------------|
| | basic test | type III |
| | of subject | (calculated) |
| braking rate of the vehicle | trailer (E) | residual |
| (item 4.3.2 to appendix 2 to annex 11) | 0.60 | (hot)braking |
| | | 0.47 |

required braking rate $\geq 0,4$ and $\geq 0,6 * E$ (0.36)
(items 1.5.3 and 1.7.2 to annex 11)

| | | |
|--------|---------------|-------------|
| axle 1 | (rdyn 421 mm) | T = 44004 N |
| axle 2 | (rdyn 421 mm) | T = 44004 N |
| axle 3 | (rdyn 421 mm) | T = 24161 N |
| axle 4 | (rdyn 421 mm) | T = 24161 N |
| axle 5 | (rdyn 421 mm) | T = 24161 N |

| | | |
|--|-------------|--------------|
| | basic test | type III |
| | of subject | (calculated) |
| braking rate of the vehicle | trailer (E) | residual |
| (item 4.3.2 to appendix 2 to annex 11) | 0.60 | (hot)braking |
| | | 0.47 |

required braking rate $\geq 0,4$ and $\geq 0,6 * E$ (0.36)
(items 1.5.3 and 1.7.2 to annex 11)

spring parking brake

| | axle 3 | axle 4 |
|--|---------|---------|
| no of TRISTOP-actuators per axle line KDZ | 2 | 2 |
| TRISTOP-actuator type | T.14/16 | T.14/16 |
| lever length lBh in mm | 69 | 69 |
| stat. tyre radius rstat max in mm | 401 | 401 |
| at a stroke of s in mm | 30 | 30 |
| min. force of spring brake TFZ in N | 6160 | 6160 |
| sp.brake chamber no Meritor..... | 4 | 4 |
| release pressure pLs in bar | 4.8 | 4.8 |

calculation:

| | | |
|--|--------|--------|
| ratio until road | 3.9674 | 3.9674 |
| $iFb = lBh * \eta * C * rBt / (rBn * rstat)$ for rstat in mm | 401 | 401 |
| brake force of spring br. Tf in N | 48188 | 48188 |
| $Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$ | | |
| braking rate zf laden | 0.290 | |
| $zf = \text{sum}(Tf) / P + 0,01$ | | |

Test of the frictional connection required by the parking brake

minimum wheelbase/minimum supporting width min Ef necessary
to fulfil the regulations

$$\text{min Ef} = E * (1 - PR/P + zferf * h/E) / (1 - zferf / (fzul * nf/ng))$$

$$\text{min Ef} = 5063 \text{ mm} \quad \text{for } E = 6450 \text{ mm}$$

$$\text{min Ef} = 5132 \text{ mm} \quad \text{for } E = 6550 \text{ mm}$$

min Ef = minimum distance between front axle(s) (trailer) or support (semitrailer)
and the rear axle(s) (resultant of the bogie)

E = wheel base

fzul = 0.80 maximum permissible frictional connection required

zferf = 0.18 maximum required braking ratio of the parking brake

h = 2277 mm height of center of gravity - laden

PR = 19050 kg maximum bogie mass - laden

P = 35050 kg maximum total mass - laden

nf = 2 no. of axle(s) with TRISTOP spring brake actuators

ng = 3 no. of bogie axle(s)

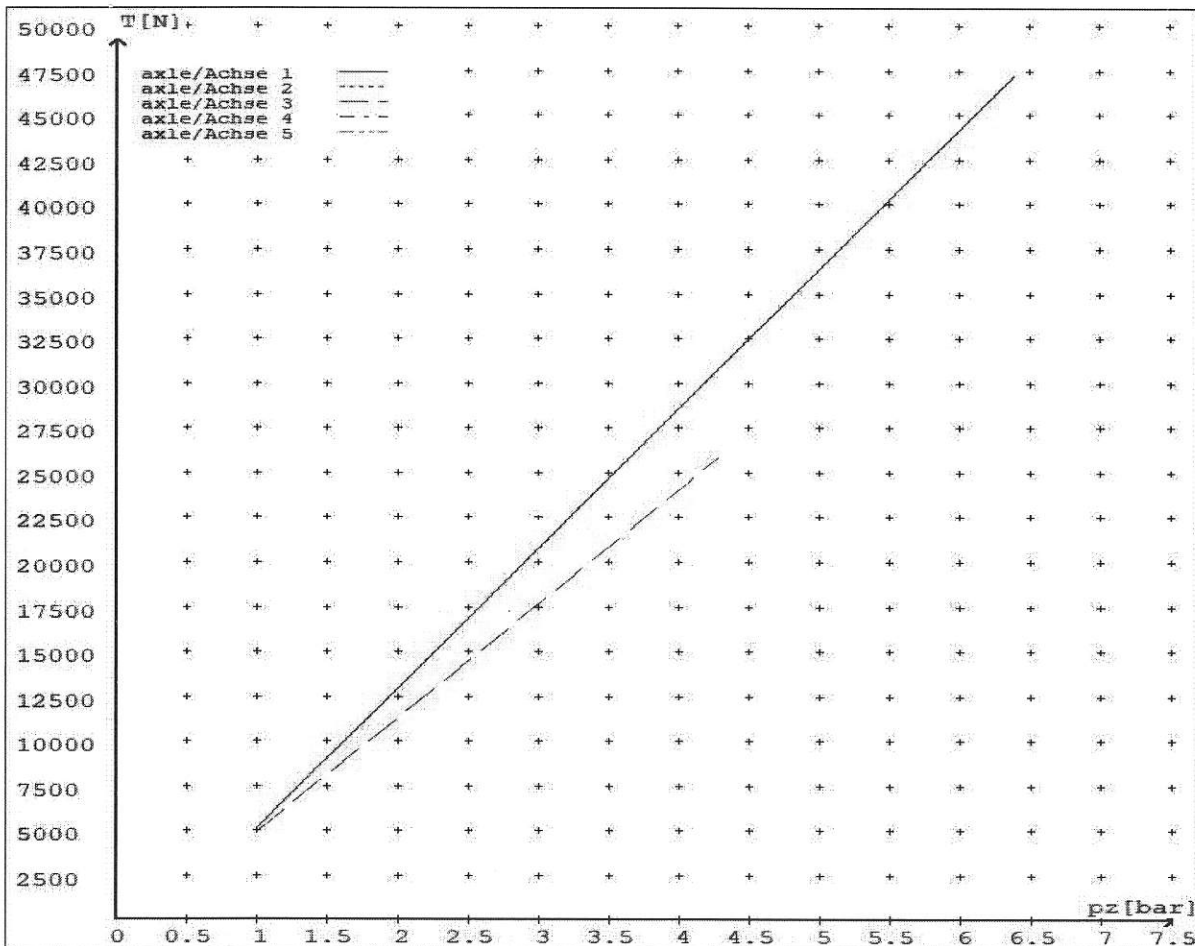
reference values

reference values for z = 50% for max rdyn: 421 mm

| | pz [bar] | T [N] | T [N] |
|--------|----------|-------|-------|
| axle 1 | 1.0 | 5095 | |
| | 6.4 | 47206 | |
| axle 2 | 1.0 | 5095 | |
| | 6.4 | 47206 | |
| axle 3 | 1.0 | | 4897 |
| | 4.3 | | 25827 |
| axle 4 | 1.0 | | 4897 |
| | 4.3 | | 25827 |
| axle 5 | 1.0 | | 4897 |
| | 4.3 | | 25827 |

VIN - no.:

| | Axle(s) / Achse(n) | | | | |
|---|--------------------|-------|---------|---------|-------|
| brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest) | 20./ | 20./ | T.14/24 | T.14/24 | 14./ |
| Maximum stroke smax = ...mm maximaler Hub smax =mm | 65 | 65 | 64 | 64 | 64 |
| Lever length = ...mm Hebellänge =mm | 69.08 | 69.08 | 69.08 | 69.08 | 69.08 |



Job No JH211209

Vin No

7A9E25013M2023113

Actual Tare

10200 kg

Trailer GVM

32000 kg

Tyre size 19.5 Tyre type

Dual

No Axles 5

Unsprung Mass

3500 kg

Unsprung height

0.40 m

Chassis top flange height

0.995 m

Chassis bottom flange height

0.680 m

Chassis COG Height

0.84 m

Chassis weight

2200 kg

Half height of beam

Body weight:

4500 kg

Max body height

4.300 m

Body COG Height

2.648 m

Half height of Body

Unladen COG Height

1.486 m

Total Tare

10200 kg

Freight Option

Uniform Density

Payload COG height

2.648 m

Laden COG Height

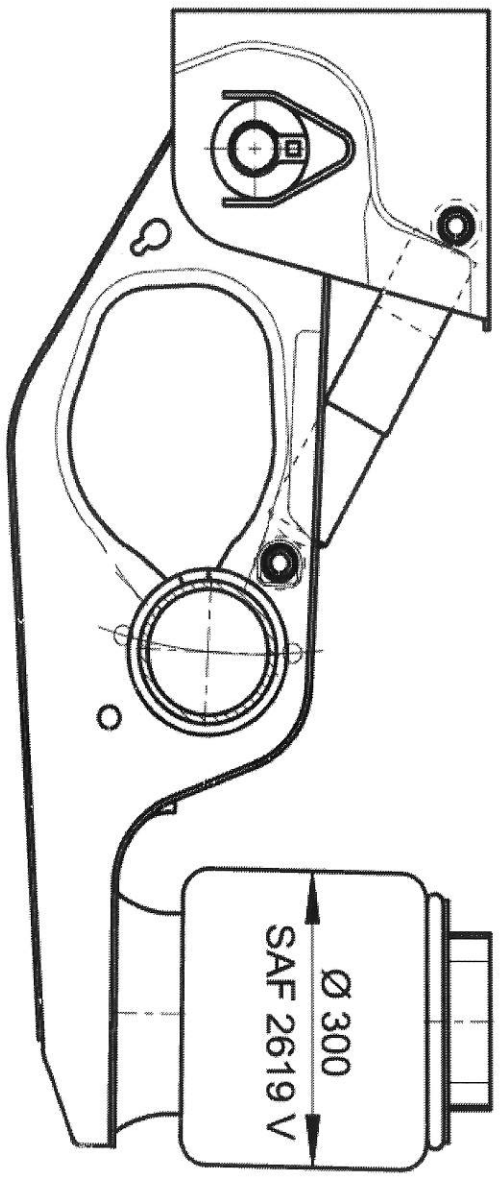
2.277 m

Suspension pressures for vehicle VIN#

7 A 9 E 2 5 0 1 3 M 2 0 2 3 1 1 3

FRONT UNLADEN
REAR UNLADEN
FRONT LADEN
REAR LADEN

| WEIGHT | BAG PRESSURES | MAKE | SUSPENSION |
|--------|---------------|---------------|-------------|
| 2400 | 1.24 | SAF_AIRSPRING | 2619, 300mm |
| 1800 | 0.82 | SAF_AIRSPRING | 2619, 300mm |
| 8000 | 5.10 | SAF_AIRSPRING | 2619, 300mm |
| 6350 | 3.96 | SAF_AIRSPRING | 2619, 300mm |





**NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015-5
WORKSHEET, PROCEDURE DOCUMENTATION SHEET
& CONFIRMATION OF COMPLIANCE**

CLIENT

| | |
|----------------------|--------------------------------|
| MANUFACTURER: | DOMETT TRAILERS |
| ADDRESS: | TAURIKURA DRIVE, TAURANGA 3110 |
| FLEET: | CARMICHAEL TRANSPORT |

VEHICLE DETAILS

| | | | |
|----------------------------------|----------------------|-----------------------|----------------------|
| VEHICLE TYPE: | 5AFT LIVESTOCK | CERT #: | JH211209 |
| YEAR: | 2021 | CALCULATION #: | TP52336 |
| MAKE: | DOMETT | REGO #: | N/A |
| MODEL: | E2501 H | LT400 #: | 800408 |
| CHASSIS #: | 2113 | ORDER #: | 8330 |
| VIN #: | 7A9E25013M2023113 | | |
| GVM: t | 32 | PRIME MOVER: | EBS / EUROPEAN |
| LOAD CONFIGURATION: | UNIFORM DENSITY | | |
| GROUP RATINGS: t | FRONT | REAR | |
| | 16 | 19 | |
| WHEEL BASE: m | 6.49 | | |
| | UNLADEN COG m | MAX HEIGHT m | HEIGHT DECK m |
| | 1.486 | 4.3 | 0.995 |
| COG: m | 2.277 | | |
| | FRONT | REAR | TOTAL |
| TARE: t | 4.8 | 5.4 | 10.2 |
| | FRONT | REAR | |
| TYRE SIZE: | 265 70 R19.5 | 265 70 R19.5 | |
| ROLLING CIRCUMFERENCE: mm | 2645 | 2645 | |
| AXLE SPACING: m | 1.31 | 2.51 | |

BRAKE & AXLE DETAILS

| | MAKE | MODEL | TEST REPORT |
|-------------------|-----------|------------------|-----------------|
| AXLE: | SAF | SAF-ZI9W | TDB0749 |
| POLE WHEEL FRONT: | 90 | POLE WHEEL REAR: | 90 |
| LINING MATERIAL: | JURID 539 | BRAKE FACTOR: | 23.03 |
| SENSED AXLES: | 2 + 4 | NOTES: | |
| SERIAL NUMBERS: | 1 | N/A | NG-IU28-ZI9-19W |
| | 2 | N/A | NG-IU28-ZI9-19W |
| | 3 | N/A | NG-IU28-ZI9-19W |
| | 4 | N/A | NG-IU28-ZI9-19W |
| | 5 | N/A | NG-IU28-ZI9-19W |

CHAMBER AND VALVING DETAILS

| CHAMBERS: | AXLE 1 & 2 | AXLE 3 & 4 | AXLE 5 |
|------------------------------|---|--|-----------------------------|
| BRAND: | TSE_CHAMBERS | TSE_CHAMBERS | TSE_CHAMBERS |
| SIZE: | 20HSCLD | 1416HTLD | 14HSCLD |
| STROKE: <i>mm</i> | 65 | 64 | 64 |
| TEST REPORT #: | BC 0041.0 Jul '07 | BC0143.0 | BZ 122.1 Sep '00 |
| SPRINGBRAKE FORCE: <i>kN</i> | N/A | 6.16 | N/A |
| HOLDOFF PRESSURE: <i>Bar</i> | N/A | 4.8 | N/A |
| FOUNDATION BRAKE: | WABCO PAN19 | WABCO PAN19 | WABCO PAN19 |
| LEVER LENGTH: <i>mm</i> | 69 | 69 | 69 |
| BRAKE VALVES: | MAKE: | PART NUMBER: | PM PRESS. <i>kPa</i> |
| ECU PART #: | WABCO | 480 102 08. 0 (MV) | 80 kPa |
| 3RD MODULATOR #: | WABCO | 480 207 202 0 (12V) | 80 kPa |
| ANTI-COMPOUNDING: | YES | | |
| SPRING BRAKE RELAY: | SEALCO_SBR | 110701 | |
| YARD RELEASE VALVE: | SEALCO_YR | 17600B | |
| INLINE RELAY FITTED: | N/A | N/A | |
| ECU DIRECTION: | <input checked="" type="checkbox"/> FRONT <input type="checkbox"/> REAR | FRONT FRICTION: μ | 0.49 |
| SUBSYSTEMS: | <input checked="" type="checkbox"/> SMARTBOARD <input type="checkbox"/> OPTI-LINK <input type="checkbox"/> CAN ROUTER 446 122 050 0 | <input type="checkbox"/> ELEX 446 122 070 0 <input type="checkbox"/> TAILGUARD | |

SUSPENSION

| | FRONT | REAR |
|-----------------------------|-----------------|---------------|
| SUSPENSION TYPE: | PNEUMATIC | ELECTRONIC |
| MAKE: | SAF_AIRSPRING | SAF_AIRSPRING |
| MODEL: | SAF_INTRA | SAF_INTRA |
| BELLOW SIZE: | 2619, 300mm | 2619, 300mm |
| HEIGHT CONTROL VALVE: | HALDEX 90554950 | 441 050 100 0 |
| OTHER VALVES: | N/A | N/A |
| RIDE HEIGHT <i>mm</i> : | 280 | 280 |
| HANGER HEIGHT <i>mm</i> : | 200 | 200 |
| PEDESTAL HEIGHT <i>mm</i> : | 50 | 50 |
| LIFTAXLE: | | 5TH AXLE |
| TIPPING DUMP SWITCH: | | N/A |
| LIFTAXLE VALVE: | | 472 195 052 0 |
| PRESSURE LIMITING: | | N/A |

AIR TANKS

| AIR TANKS STANDARD: | SAE J10A / EN286-2 | |
|-------------------------------|--------------------------|---------|
| | FRONT | REAR |
| BRAKE TANK SIZE: <i>L</i> | 46 | 46 + 25 |
| AUXILLARY TANK SIZE: <i>L</i> | N/A | 46 |
| PRESSURE PROTECTION: | WABCO PEM: 461 513 002 0 | |

AIR LINES

TEST POINTS:

| | | | |
|------------------------|-----|----------------|-----|
| CONTROL LINE: | X 1 | TANK: | X 1 |
| REAR CHAMBER: | X 2 | FRONT CHAMBER: | X 1 |
| DUOMATIC COLOUR CODED: | YES | | |

ELECTRONIC HEIGHT SENSOR CALIBRATION

| | TIMER TICKS [F/R] | MILLIMETRE [F / R] |
|---------------|----------------------|----------------------|
| UPPER LEVEL: | <input type="text"/> | <input type="text"/> |
| NORMAL LEVEL: | <input type="text"/> | / 260 |
| LOWER LEVEL: | <input type="text"/> | <input type="text"/> |

CHECKS AT COMMISSION OF VEHICLE

| | | | |
|-----------------------------|--------------------------|----------------------|--------------------------|
| CHAMBER BUNGS REMOVED: | <input type="checkbox"/> | VALVE MOUNTING: | <input type="checkbox"/> |
| ECU BLANKING PLUGS CHECKED: | <input type="checkbox"/> | | |
| RESPONSE TIME: | MODULATOR 2.1 | MODULATOR 2.2 | RELAY VALVE |
| ms: | <input type="text"/> | <input type="text"/> | <input type="text"/> |

NOTES AND SPECIAL CONDITIONS

FILES RECEIVED: 06.12.21

FILES CREATED: 06.12.21

FILES SENT: 06.12.21 (SWI)


FILES RETURNED AS COMPLETE:

REASON FOR CERTIFICATION: NEW TRAILER BUILD

I UNDERSTAND AND DECLARE THAT I AM THE CERTIFIER IDENTIFIED BELOW AND HOLD A CURRENT VALID APPOINTMENT. I CERTIFY THAT AT THE TIME OF INSPECTION THE ABOVE MENTIONED VEHICLE COMPONENT DESIGN AND THIS CERTIFICATION COMPLIES IN ALL RESPECTS WITH THE LAND TRANSPORT RULE VEHICLE STANDARDS COMPLIANCE 2002 AND MY DEED OF APPOINTMENT. TO THE BEST OF MY KNOWLEDGE THE INFORMATION CONTAINED IN THIS CERTIFICATE IS TRUE AND CORRECT.

NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015/5, SCHEDULE 5.

DATE: 6/12/2021

SIGNED: 

CERTIFIER NAME & ID: WILLIAM SINCLAIR SWI

SODC BY: JOHN HIRST JEH

PHONE (BUS): 09-980-7300

FAX:

POSTAL ADDRESS: P.O. Box 98-971, Manukau 2241
New Zealand

NOTICE TO VEHICLE OPERATOR

This trailer is equipped with an Electronic Brake System.

To comply with the New Zealand Heavy Vehicle Brake Rule, it must be used only in conjunction with a truck/tractor equipped with an ISO 7638, 5 or 7 pin ABS/EBS power supply socket.

Failure to connect to such supply invalidates Brake Rule compliance.

The trailer ABS/EBS warning light on the towing vehicle dashboard must illuminate when the ignition is switched on and extinguish when the vehicle is in motion.

If the light does not illuminate when ignition is switched on, the system must be checked. If the light remains illuminated when the vehicle is in motion, Brake Rule compliance is compromised. Repairs must be made as soon as possible.

NB;

If this vehicle is fitted with mechanical (spring) suspension, the load sense valving has been adjusted to suit exactly the performance of the original springs. In event of replacement being required, original equipment springs **must** be fitted to ensure correct ongoing operation. Fitment of non genuine springs can affect operation and therefore, compliance.

If you are unsure of your responsibilities and/or obligations. please contact either the vehicle manufacturer or myself.



WILLIAM SINCLAIR

HVEK

09-980-7300

NOTICE TO VEHICLE OPERATOR

THIS VEHICLE HAS A BRAKE SYSTEM WHICH HAS BEEN DESIGNED
AND FITTED IN ACCORDANCE WITH THE NEW ZEALAND HEAVY VEHICLE
BRAKE RULE 32015/5:

SCHEDULES.

IF THIS VEHICLE IS OPERATED IN CONJUNCTION WITH NON-CODED VEHICLES, THERE MAY
BE OPERATIONAL FACTORS WHICH NEED TO BE TAKEN INTO CONSIDERATION.
PLEASE REFER TO THE CERTIFIER FOR FURTHER INFORMATION.

EXCERPT FROM NZ HEAVY VEHICLE BRAKE RULE 32015/5

- 10.1 Responsibilities of operators**
A person who operates a vehicle must ensure that the vehicle complies with this Rule.
- 10.2 Responsibilities of repairers**
A person who repairs or adjusts a brake must ensure that the repair or adjustment:
- (a) does not prevent the vehicle from complying with this Rule; and
 - (b) complies with *Land Transport Rule: Vehicle Repair 1998*.
- 10.3 Responsibilities of modifiers**
A person who modifies a vehicle so as to affect the braking performance of the vehicle must:
- (a) ensure that the modification does not prevent the vehicle from complying with this Rule; and
 - (b) notify the operator that the vehicle must be inspected and, if necessary, certified by a person or organisation appointed to carry out specialist inspection and certification of heavy vehicle brakes.
- 10.5 Responsibilities of manufacturers and retailers**
A person may manufacture, stock, or offer for sale a brake or its components, intended for fitting to a vehicle to be used on a New Zealand road, only if that brake or component:
- (a) complies with this Rule; and
 - (b) does not prevent a repair to a vehicle, its structure, systems, components and equipment from complying with this Rule.

IF YOU ARE UNSURE ABOUT YOUR RESPONSIBILITIES, PLEASE
CONTACT THE VEHICLE MANUFACTURER, OR MYSELF.

COMPLAINTS. Complaints and Warranty issues which relate to Brake Certification will be acknowledged within 7 working days and a resolution proposed within 25 working days. Resolution of complaints and Warranty issues is subject to Transpecs Warranty policy. Customers have the right to appeal to the NZ Transport Agency if dissatisfied with a Compliance issue. (refer NZTA Deed Of Appointment Para 47.4)

NZ Transport Agency Helpdesk 0800 699 000



NZ Transport Agency | SWI
HVEK
(09 980 7300)



Gough Transpecs
 Corner Kerrs & Ash Roads, Wiri
 PO Box 98 971, Manukau City, NZ 2241
 Phone (09) 980 7300 Fax (09) 980 7306
 transpecs.co.nz



Service Bulletin

Wabco Welding Warning

From: John Hirst, OE Braking Product Manager
 Ref: JH-TSL-091115

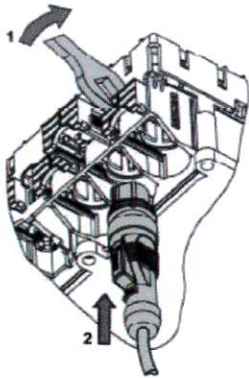
Date: 9 November 2015

NB: Any sort of arc welding can cause damage to an ECU fitted to a trailer. The inverter that we supply is also susceptible to damage from welding arcs.

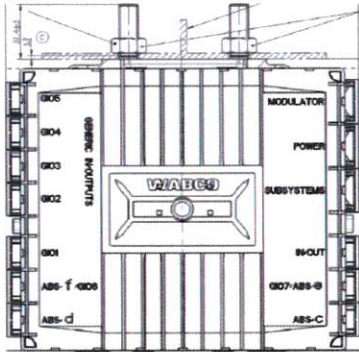
Prevention is less costly than the cure.

Please follow the following recommendation from Wabco for all ABS and EBS models:

1. Remove all the main power cables and diagnostic cables from the ECU as they have non interchangeable connections.
2. Leave the sensor cables that are plugged into the ECU and disconnect them at the wheel end. This will cover the protection against welding, and at the same time will prevent mixing them up at the ECU end.



Above: Wabco TEBS E Modulator – Plugs and dismantling of cables and protective caps.



Above: Diagram of a Wabco ECU.

